STATE OF NORTH CAROLINA

OFFICE OF STATE PERSONNEL

POSITION DESCRIPTION FORM (PD-102R-92)

Approved Classification: _____

Effective Date: _____

Analyst: _____

(This Space for Personnel Dept. Use Only)

1. Present Classification Title of Position Transportation Technician II	7. Pres. 15 Digit Position No. Prop. 15 Digit Pos. No.
2. Usual Working Title of Position Field Survey Instrument Operator	8. Department, University, Commission, or Agency Transportation
3. Requested Classification of Position Transportation Technician II	9. Institution & Division Highways
4. Name of Immediate Supervisor	10. Section and Unit Highway Design \ Location & Surveys
5. Supervisor's Position Title & Position Number Transportation Engineering Supervisor I	11. Street Address, City and County 1020 Birch Ridge Rd., Raleigh, NC
6. Name of Employee	12. Location of Workplace, Bldg. And Room No. Century Center, Bldg. B

I. A. Primary Purpose of Organizational Unit:

The primary purpose of Location & Surveys is to serve as support services in providing engineering analysis, mapping and other data for the design of transportation facilities and the acquisition of property for the construction of transportation facilities.

B. Primary Purpose of Position:

Work involves the performance of moderately complex technical assignments in connection with highway route location surveys of projects in the field or office. Employee performs a variety of complex survey instrument operations and/or moderately complex CADD and computer operations in the surveying and creation of plan sheets and survey data for TIP projects, including hydraulic surveys, complex horizontal alignments, setting of photogrammetric controls, property condemnations, and Global Positioning System (GPS) field work. These tasks require some independent judgment in the application of standard civil engineering practices and procedures. Work is usually accomplished under the supervision of higher level technicians or engineers as part of an engineering survey group, but may include some supervision of lower level technicians.

C. Work Schedule:

8:00 AM to 4:30 PM, or some variation thereof, Monday through Friday, for a total of 40 hours per work week. Flex time or seasonally variable work hours may be used in individual offices based upon needs and circumstances.

D. Change in Responsibilities or Organizational Relationship:

The duties of this position have expanded to include additional responsibilities in the use and operation of electronic engineering survey instruments, including Global Positioning System equipment, computers and CADD workstations. Increased responsibility in research of real estate records.

II. A. DESCRIPTION OF RESPONSIBILITIES AND DUTIES: Method Used (Check One) Order of importance X__
Sequential order_____

Place an asterisk (*) next to each essential function. (See instructions for complete explanation.) Please note percentage of time for each function.

No.	%	
1	05	**Safety -** Maintain safe work attitude, use required personal protective wear items, be familiar with and use safe operating procedures. Keep alert and notify others of potential safety hazards; place signs and other traffic control devices in a work zone as directed by supervisors.
2	50	**Operates Electronic Engineering Survey Equipment -** Responsible for the daily maintenance and operation of electronic total stations, GPS receivers, and other field survey instruments in the collection of field data for use in the design of highways, including topographic features, hydrographic information, utility locations, property boundaries, and elevations; in the preparation of mapping for litigation hearings and trials; and in the delineation of proposed highway corridors, rights of way, and easement lines. Responsible for proper use of survey data collection codes and input to enhance CADD operations. Employee downloads, edits, and processes electronic field notes using computers and CADD workstations. Interprets plans and uses computers and calculators to make computations required for field stake out of survey alignments and proposed right of way and easement points.
3	20	**Operates CADD Equipment in Drafting -** Operates CADD equipment in simple and moderately complex drafting tasks, utilizing standard CADD symbology, programs, etc., in the preparation of highway or property litigation mapping files. Utilizes computers to prepare property appraisal data reports, utility pole data reports.
4	10	**Court House Research -** Assists in researching public records to determine ownership of properties along the survey route to obtain copies of deeds and other documents that show ownership and descriptions of affected properties.
5	10	**Field Supervision -** Supervises small field crew in obtaining field survey data for development of DTM's and in identification and labeling of planimetric and topographic features on aerial classification photos for preparation of plan sheets.
6	05	**Other Duties** - as defined by higher level technicians or engineers.

II. B. OTHER POSITION CHARACTERISTICS: (cont.)

1. Accuracy Required in Work:

Accuracy to meet minimum standards for the task as set by NCDOT and the Location and Surveys Unit.

2. Consequence of Error:

Erroneous work can result in additional time for others to edit or correct, or can result in additional field work. Uncorrected data can result in poor design based upon incorrect information and can increase project costs by extending the time in gathering field data or delay plan sheet preparation by other units.

3. Instructions Provided to Employee:

Receives verbal and some written instruction from higher level engineers and technicians along with on the job training on a daily basis.

4. Guides, Regulations, Policies and References Used by Employee:

CADD and other computer references and manuals; NCDOT Workplace Safety Manual; NCDOT and FHWA Manuals on Uniform Traffic Control Devices (MUTCD); field instrument operator's manuals. Uses applicable Unit standards and procedures for the task at hand.

5. Supervision Received by Employee:

Receives direct daily supervision from higher level technicians and/or engineers. All work is checked thoroughly by higher level engineers and technicians using standard engineering and surveying practices and procedures.

6. Variety and Purpose of Personal Contacts:

Has daily personal contact within the survey group. Public contacts are usually with other governmental or utility company employees while obtaining data to be used in field surveys. Property owner contact is incidental in the performance of duties after the property owner has been contacted by higher level engineers of technicians.

7. Physical Effort:

This is primarily an outside position. Outside work may involve any type of weather or geographic conditions, at any time of day. Physical labor such as traversing rough terrain, using bush ax or chain saw for clearing brush, or carrying heavy or cumbersome equipment is typical. Operation of a motor vehicle is required to reach job site and to move personnel and equipment on the job site. Inside activities may involve long periods of viewing CADD screens and repetitive wrist/hand movements in mouse operations

8. Work Environment and Conditions:

Perform outside work in field conditions where heat, cold, animals, insects, bees, snakes, poison plants and proximity to moving vehicles may be encountered. Some work may be in a controlled office environment. Employee may also be required to confront irate citizens.

9. Machines, Tools, Instruments, Equipment and Materials Used:

Field use of survey equipment such as, electronic theodolites, distance meters, computerized data collectors, GPS receivers, tripods, plumb bobs, measuring tapes, bush axes, and chain saws may be required. Use of computers, CADD workstations, hand-held calculators, triangles, scales, and other hand-drafting or measuring equipment; manuals; large photographs and plan sheets; telephone. Operation of motor vehicles is required in performance of duties.

10. Visual Attention, Mental Concentration and Manipulative Skills:

Operation of motor vehicles, chain saws, computers, axes, and survey instruments require visual attention, mental concentration, and manipulative skills for accuracy and/or safety. Mouse operations require physical dexterity and adequate hand-to-eye coordination.

11. Safety for Others:

Has responsibility for staying alert and observing potential safety hazards and informing or warning others. failure in this can result in serious injury or death to survey crew members or the traveling public.

12. Dynamics of Work:

Advances in technologies bring about new and/or safer equipment and procedures which this person must learn to use and become proficient in using.

III. KNOWLEDGE, SKILLS & ABILITIES AND TRAINING & EXPERIENCE REQUIREMENTS:

A. Knowledge's, Skills and Abilities:

Employee must have the ability to receive and understand verbal and written instructions and follow directions. Requires some proficiency in mathematics, including algebra, geometry, and trigonometry. Requires manual dexterity for instrument operations. This position requires good physical conditioning and requires the use of the senses of sight, feel and hearing.

B. 1. Required Minimum Training:

Graduation from a two year college with a degree in Civil Engineering or Survey Technology and two years of progressive transportation technician experience.

2. Additional Training/Experience:

Additional training as needed will be supplied by supervisor and Location & Surveys Unit or NCDOT Training Personnel.

3. Equivalent Training and Experience:

Graduation from high school with course work in mathematics and four years of progressive transportation technician experience; or an equivalent combination of training and experience.

C. License or Certification Required by Statute or Regulation:

NC Driver's License is required.

IV. CERTIFICATION: Signatures indicate agreement with all information provided, including designation of essential functions.

Supervisor's Certification: I certify that (a) I am the Immediate Supervisor of this position, that (b) I have provided a complete and accurate description of responsibilities and duties and (c) I have verified (and reconciled as needed) its accuracy and completeness with the employee.

Signature Title: Date:

Employee's Certification: I certify that I have reviewed this position description and that it is a complete and accurate description of my responsibilities and duties.

Signature Title: Date:

Section or Division Manager's Certification: I certify that this position description, completed by the above named immediate supervisor, is complete and accurate.

Signature Title: Date:

Department Head or Authorized Representative's Certification: I certify that this is an authorized, official position description of the subject position.

Signature Title: Date: